AMENDMENT TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application.

Listing of the claims:

1. (Currently Amended) A system for connecting a packet network with a circuit network comprising:

a module for receiving a packet-based signal and transcoding the packet-based signal creating a transcoded packet-based signal;

a module for receiving the transcoded packet-based signal, reassembling the signal creating a circuit-based signal, performing echo cancellation and transmitting the circuit-based signal to the circuit network; and

a centralized packet switch fabric ~~module~~ for sending the transcoded packet-based signal to the module for receiving the transcoded packet-based signal, wherein the centralized packet switch fabric transfers packet-based signals among the packet network server and the circuit network server.

2. (Currently Amended) A system for connecting a circuit network with a packet network comprising:

a module for receiving a circuit-based signal and performing echo cancellation and packet adaptation, creating a packet-based signal;

a module for receiving the packet-based signal and transcoding the packet-based signal creating a transcoded packet-based signal and sending the transcoded packet-based signal to the packet network; and

a centralized packet switch fabric ~~module~~ for transmitting the packet-based signal to the module for receiving the packet-based signal, wherein the centralized packet switch fabric transfers packet-based signals among the packet network server and the circuit network server.

3. (Currently Amended) A system for connecting a circuit network with a packet network, the system comprising:

a centralized packet switch fabric;

a circuit network server having a first port for sending and receiving circuit-based signals with the circuit network, the circuit network server having a first at least one digital signal processor to perform packet adaptation and a second at least one digital signal processor which subsequent to the packet adaptation performs signal processing and a second port for sending and receiving packet-based signals having packets with the centralized packet switch fabric; and

a packet network server having a first port for sending and receiving packet-based signals with the centralized packet switch fabric and a second port for sending and receiving packet-based signals with the packet network;

wherein the centralized packet switch fabric ~~is capable of transferring~~ transfers packet-based signals among the packet network server and the circuit network server, and among the circuit network server and a second circuit network server.

4. (Original) A system according to claim 3 wherein, the signal processing performed on the second at least one digital signal processor is gateway signal processing.

5. (Original) A system according to claim 4 wherein, the gateway signal processing on the second at least one digital signal processor of the circuit network server is transcoding.

6. (Original) A system according to claim 4 wherein, the gateway signal processing on the second at least one digital signal processor of the circuit network server is echo cancellation.

7. (Currently Amended) A system according to claim 3 wherein, the centralized packet switch fabric further comprises a switch for switching among the packet network server and the circuit network server.

8. (Currently Amended) A system according to claim 3 wherein, the centralized packet switch fabric is a switching module.

9. (Currently Amended) A system according to claim 3 wherein, the centralized packet switch fabric is a packet bus.

10. (Currently Amended) A system according to claim 3 wherein, the centralized packet switch fabric is a cell bus.

11. (Currently Amended) A system according to claim 3 further comprising a signal processing server having a port for sending and receiving packet-based signals with the centralized packet switch fabric, the signal processing server having a digital signal processor for performing signal processing on the packet-based signals;

wherein the centralized packet switch fabric transfers packet-based signals to the signal processing server.

12. (Original) A system according to claim 11 wherein, the signal processing performed on the digital signal processor of the signal processing server is gateway signal processing.

13. (Currently Amended) A method for communicating a circuit-based signal as a packet-based signal, the method comprising:

receiving a circuit-based signal into a circuit network server;

performing echo cancellation on the circuit-based signal;

performing packet adaptation on the circuit-based signal forming a packet-based signal;

transferring the packet-based signal to a centralized packet switch fabric;

transferring the packet-based signal from the centralized packet switch fabric to a signal processing server;

transcoding the packet-based signal creating a transcoded packet-based signal;

directing the transcoded packet-based signal from the signal processing server to a packet network server; and

sending the transcoded packet-based signal from the packet network server.

14. (Currently Amended) The method of claim 13 wherein, said step of directing comprises transferring the transcoded packet-based signal from the signal processing server to the centralized packet switch fabric and transferring the transcoded packet-based signal from the centralized packet switch fabric to the packet network server.

15. (Currently Amended) A system for connecting a circuit network with a packet network, the system comprising:

a centralized packet switch fabric;

a circuit network server having a first port for sending and receiving circuit-based signals with the circuit network, the circuit network server having a first at least one digital signal processor to perform packet adaptation and a second at least one digital signal processor which subsequent to the packet adaptation performs signal processing and a second port for sending and receiving packet-based signals having packets with the centralized packet switch fabric; and

a packet network server having a first port for sending and receiving packet-based signals with the centralized packet switch fabric and a second port for sending and receiving packet-based signals with the packet network;

wherein the centralized packet switch fabric transfers packet-based signals among the packet network server and the circuit network server, and among the packet network server and a second packet network server.

16. (Currently Amended) A system according to claim 15 wherein, the centralized packet switch fabric is a switching module.

17. (Currently Amended) A system according to claim 15 wherein, the centralized packet switch fabric is a packet bus.

18. (Currently Amended) A system according to claim 15 wherein, the centralized packet switch fabric is a cell bus.

19. (New) A system according to claim 1 wherein the module for transcoding the packet-based signal transforms the packet-based signal using an audio compression technique to create a transcoded packet-based signal, wherein the transcoded packet-based signal is in accord with ADPCM, LD-CELP, CELP, LPC10, G.711, G.722, G.723.1, G.726, G.728, G.729 or any combination thereoef.